



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,394	03/17/2004	James L. Webber	DP-311802	3659
22851	7590	08/02/2006	EXAMINER	
DELPHI TECHNOLOGIES, INC. M/C 480-410-202 PO BOX 5052 TROY, MI 48007			ROSENBERG, LAURA B	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/802,394	Applicant(s) WEBBER, JAMES L.	
	Examiner Laura B. Rosenberg	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20, 21 and 26 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-14, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 5-8, 15-19, 22 and 25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/28/04; 7/15/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 5, 8, 16-19, 22, and 25 are objected to because of the following informalities: "the other" should be changed to --the other end-- (claim 5, line 3; claim 8, lines 5, 7; claim 16, lines 5, 7; claim 17, lines 5, 7; claim 18, line 6; claim 19, line 4; claim 22, line 7; claim 25, line 6). Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claim 11, it is unclear if the diffusing member is providing an extension at either end of the inflator or at both ends of the inflator. Based on the claim of "said extensions" in line 3, it seems that there is an extension at both ends. However, the claim of "either end of the inflator" in line 3 infers that the extension is provided at only one end. Clarification is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3616

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 9, 10, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Sinnhuber et al. (2002/0020990 A1). Sinnhuber et al. disclose an air bag device (including #2), comprising:

- Inflatable cushion (including #6) being configured for deployment from the air bag device
- Inflator (including #9) for inflating the inflatable cushion and being in fluid communication with said inflatable cushion
- Inflator comprising a first initiator for initiating a first stage of inflation and a second initiator for use with the first initiator for initiating a second stage of inflation (paragraphs 0064-0066), the first stage of inflation providing a first inflation output to the inflatable cushion
- Deployable member (including sensing airbag #10) disposed within the inflatable cushion and in fluid communication with the inflator, wherein the first stage of inflation causes the deployable member to deploy in a first direction (can be seen in figure 1)
- Unobstructed deployment of the deployable member in the first direction will cause an activation signal to be sent to the second initiator to initiate the second stage of inflation ("activation signal" is the absence of a control signal from touch-sensing device #37 to control device #35; paragraph 0066)
- Sensing device (including #37) operably coupled to the deployable member and comprising a sensing element (for example, in the form of switch contacts) that

Art Unit: 3616

provides a signal (control signal) to a sensing and diagnostic module (including #35), which provides the activation signal to the second initiator when the deployable member deploys in an unobstructed manner (paragraphs 0065-0066)

- Deployment of the deployable member in the first direction (for example, to the right in figure 1) causes a leading edge (for example, right edge in figure 1) of the inflatable cushion to reach a distance from the air bag device prior to the second state of inflation, the distance being defined by the configuration of the deployable member
- Maximum distance of the leading edge is reached faster than the inflatable cushion being inflated without the deployable member disposed therein (for example, because the initial expansion of #10 helps to move #11 closer to its maximum inflation level)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sinnhuber et al. (2002/0020990 A1) in view of Goestenkors et al. (5,303,951).

Sinnhuber et al. disclose an air bag module (including #2), comprising:

- Housing (including #3)

Art Unit: 3616

- Inflatable cushion (including #6) being configured for deployment from the air bag device
- Inflator (including #9) for inflating the inflatable cushion and being in fluid communication with said inflatable cushion
- Inflator comprising a first initiator for initiating a first stage of inflation and a second initiator for use with the first initiator for initiating a second stage of inflation (paragraphs 0064-0066), the first stage of inflation providing a first inflation output to the inflatable cushion
- Deployable member (including sensing airbag #10) disposed within the inflatable cushion and in fluid communication with the inflator, wherein the first stage of inflation causes the deployable member to deploy in a first direction (can be seen in figure 1)
- Unobstructed deployment of the deployable member in the first direction will cause an activation signal to be sent to the second initiator to initiate the second stage of inflation ("activation signal" is the absence of a control signal from touch-sensing device #37 to control device #35; paragraph 0066)

While Sinnhuber et al. do not specifically disclose a securement member disposed about the inflator that secures the deployable member to the housing, it is old and well known in the art to use some type of securement or mounting member to attach the inflator and airbag components to the housing as it is essential to fix these components to the housing so that they do not project into the vehicle interior when the air bag is deployed. Further, Goestenkors et al. (5,303,951) teach an air bag module

Art Unit: 3616

comprising an air bag (including #56), an inflator (including #52), a housing (including #44), and a securement member (including #50, 54) disposed about the inflator that secures the air bag to the housing. It would have been obvious to one skilled in the art at the time that the invention was made to modify the air bag module of Sinnhuber et al. such that it comprised a securement member as claimed in view of the teachings of Goestenkers et al. so as to secure the inflator and air bag to the housing.

Allowable Subject Matter

8. Claims 20, 21, and 26 are allowed.
9. Claims 18, 19, 22, and 25 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.
10. None of the prior art of record appears to read on claims 11-13, as best understood by the examiner, and the subject matter of the claims appears to be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. However, upon applicant's amendment to overcome the rejections and objections raised by the examiner and upon the examiner's better understanding of the invention, a comparison of the prior art to the claim will again be made.
11. Claims 5-8, 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McCullough, Jr. et al. disclose an air bag module including an inflatable cushion and flexible tubes that provide inflation fluid to the cushion and aid deployment of the cushion.

Hanson discloses an air bag module including an inflatable cushion and deployable members within the cushion that aid in deployment of the cushion.

Rudolf et al. disclose an air bag module including an inflatable cushion and a deployable member within the cushion that fills with inflation fluid much more rapidly than the cushion.

Lang and Okada et al. disclose an air bag module including an inflatable cushion and a deployable tether within the cushion.

White et al. disclose an air bag module including an inflatable cushion and a sensor on one end of the cushion for detecting an out of position occupant.


Winters et al. disclose an air bag module including an inflatable cushion, deployable tethers within the cushion, and a dual stage inflator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.


Art Unit: 3616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Laura B Rosenberg
Patent Examiner
Art Unit 3616

LBR


DAVID R. DUNN
PRIMARY EXAMINER
7/31/06